

## **FAN HEATER**

Models: DEVIL 4040 • 4060 • 4100 • 4120

# OPERATING & MAINTENANCE INSTRUCTIONS

<u>(E)</u>

0905



## **DECLARATION of CONFORMITY**

We declare that this product complies with the following standards/directives:

• 73/23/EEC

• 98/336/EEC

Serial/Batch No: See Data Plate

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#### SPECIFICATIONS

Model Number	Devil 4040	Devil 4060	Devil 4100	Devil 4120	
Input	230V 50hz 1ph	400V 50hz 3ph	400V 50hz 3ph	400V 50hz 3ph	
Output Rating	3kW	5kW	9kW	15kW	
Supply Fuse Rating	13A	15A	15A	25A	
Dimensions (mm)	260x260x410	360x280x380	440x330x490	480x370x520	
Air Output	510m³/h	510m³/h	800m³/h	1700m³/h	
Noise Level	50dBLwa	50dBLwa	52dBLwa	54dBLwa	
Gross Weight	7.5kg	8.0kg	13.5kg	15.5kg	
Part No.	6925160	6925165	6925170	6525175	
1					

## PARTS & SERVICE

PARTS & SERVICE TEL: 020 8988 7400

or e-mail as follows:

PARTS: Parts@clarkeinternational.com SERVICE: Service@clarkeinternational.com



Waste electrical products should not be disposed of with household waste. Please dispose of at your local recycling facility.

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Thank you for purchasing this Clarke Fan Heater.

Before attempting to operate the unit please read this instruction leaflet and carefully follow all directions given. By doing so you will ensure safe operation of the unit and you can also look forward to it providing you with long and trouble free service.

#### **GUARANTEE**

This CLARKE product is guaranteed against faults in manufacture for 12 months from purchase date. Please keep your receipt as proof of purchase.

This guarantee is invalid if the product has been found to have been abused in any way, or not used for the purpose for which it was intended, or to have been tampered with in any way. The reason for return must be clearly stated.

This guarantee does not affect your statutory rights.

#### SAFETY PRECAUTIONS

- This heater is for INDOOR USE ONLY.
- NEVER use electrical equipment in the presence of combustible gases.
- ALWAYS disconnect from the mains supply before moving or performing any maintenance tasks.
- ALWAYS use in an upright position ONLY.
- Inspect the mains cable regularly for signs of damage. DO NOT use if it is damaged, and ALWAYS keep it away from the source of heat.
- NEVER remove the auards from this machine.
- NEVER locate the heater near combustible materials such as curtains, furniture etc. Allow at least 1 metre distance.
- DO NOT use this heater in a bathroom, shower room, in the vicinity of a swimming pool, or any wet environment.
- DO NOT locate the heater close to an adjacent wall or ceiling...allow a distance of at least 1 metre from a wall or ceiling.
- NEVER cover the heater, or block any of the vents.
- DO NOT use if the heater elements are damaged.
- NEVER touch the heater for at least 15 minutes after it is switched off.
- DO NOT leave the heater unattended.
- If children are present.....ALWAYS use with a fireguard.
- Do NOT use in a paint spray booth or any explosive environment.
- Take care to ensure that the fan grille cannot be blocked by curtains or the like.

#### **ELECTRICAL CONNECTIONS**

#### **Devil 4040**

This model is provided with a 13 amp BS 1363 plug, fitted with a 13 amp fuse and MUST be connected to a standard, 230 Volt (50Hz) electrical supply, preferably through an approved plug, or a suitably fused isolator switch.

#### WARNING! THIS APPLIANCE MUST BE EARTHED

**IMPORTANT:** The wires in the mains lead are coloured in accordance with the following code:

Green & Yellow	.Earth
Blue	. Neutral
Brown	. Live

As the colours of the flexible lead of this appliance may not correspond with the coloured markings identifying terminals in your plug, or your mains supply, proceed as follows:

- Connect GREEN & YELLOW coloured cord to plug terminal marked with a letter "E" or Earth symbol "\(\pm\)" or coloured GREEN or GREEN & YELLOW.
- $\bullet$  Connect BROWN cord to terminal marked with a letter "L" or coloured RED.
- Connect BLUE cord to terminal marked with a letter "N" or coloured BLACK.

#### **Fuse Rating**

The fuse in the plug must be replaced with one of the same rating (13 amps) and this replacement must be ASTA approved to BS1362.

This appliance is fitted with a plug which is moulded on to the electric cable (i.e. non-rewireable) please note:

- The plug must be thrown away if it is cut from the electric cable. There is a danger of electric shock if it is subsequently inserted into a socket outlet.
- 2. Never use the plug without the fuse cover fitted.
- 3. Should you wish to replace a detachable fuse carrier, ensure that the correct replacement is used (as indicated by marking or colour code).
- 4. Replacement fuse covers can be obtained from most DIY or electrical stores.

#### Devils 4060, 4100 & 4120

These machines MUST be connected to a **400 Volt, 3 PHASE 50Hz** supply through a suitably fused isolator switch. It **cannot** be operated from a single phase supply.

A trailing socket is NOT provided, but is available from your CLARKE dealer, Part No:

It is important to note, that the PLUG is wired as shown in the illustration opposite, as viewed from the **outside** of the unit - the socket should be wired correspondingly.

- The GREEN or GREEN & YELLOW coloured wire, is connected to the terminal marked with the letter "E" or Earth symbol "4"
- The BLACK or Blue wire is connected to the 'N' or Neutral terminal.
- The Remaining wires are connected to the terminals marked L1, L2 and L3.

#### **WARNING!**

IF YOU ARE IN ANY DOUBT ABOUT ELECTRICAL CONNECTIONS, CONSULT A QUALIFIED ELECTRICIAN.

DO NOT ATTEMPT ELECTRICAL CONNECTIONS or REPAIRS YOURSELF.

#### **OPERATION**

With the heater suitably sited (ensure you comply with all safety precautions), switch the heater ON to either fan only, half or full output (see illustration below).

A temperature control switch (A) is also provided for fine control of heat output.

Should the unit overheat, a thermal cutout will operate, shutting down the unit. Allow a period of time for the unit to cool (approx. 10 minutes) before pressing the reset using a suitable pointed tool, and restarting.

When switching the unit OFF, it is strongly recommended that it is run in the FAN ONLY mode for approx. 10 minutes, in order to cool the elements, before switching OFF completely and finally disconnecting from the mains supply.

The thermal cutout may also operate if the heater is shut down without allowing to cool sufficiently. If, subsequently, the machine fails to start, press the reset using a suitable tool and try again.



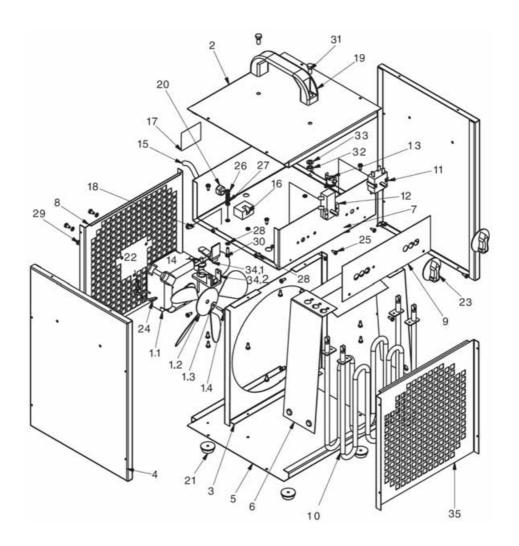
- A. Temperature control sw.
- B. OF/OFF Switch
- C. OFF
- D. Fan Only
- E. Fan w/ Single Element
- F. Fan w/ Both Elements

#### MAINTENANCE

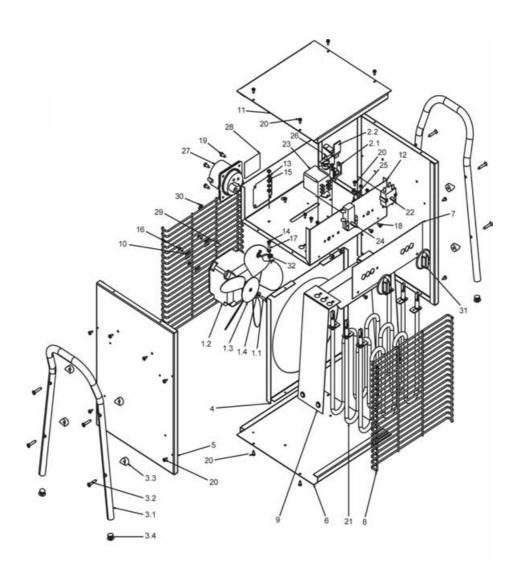
Before performing any maintenance tasks, if the heater has been used, ALWAYS allow it to cool down for at least 10 minutes, by switching to FAN ONLY, then disconnect from the mains supply.

#### Periodically.

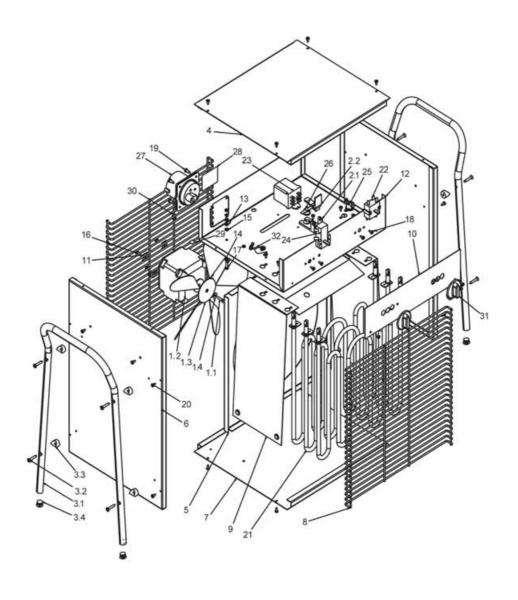
- Disconnect from the mains supply, and use compressed air at low pressure to clean out the unit. ALWAYS wear a dust mask to perform this operation.
  - If there is any serious build up of dirt, it is possible to remove the bottom cover, by unscrewing the 6 self tapping screws securing it, to gain access to the fan and heating elements. Clean these thoroughly taking great care not to distort the fan. Ensure the bottom cover is firmly secured when completed.
- Inspect the mains cable for damage. Heat damage will cause the cable to stiffen and crack. If this is found, have the cable replaced. Check cable routing and ensure it is well away from the heat source.



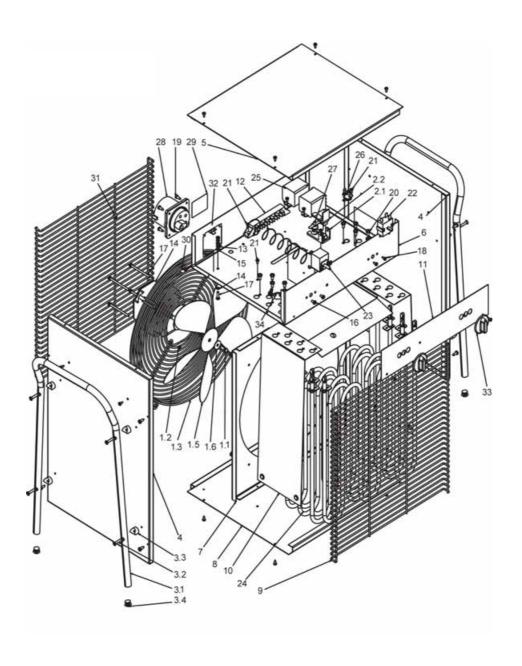
No.	Description	Qty	Part No.
1.1	Motor Sw/230v	1	DE4510301
1.2	Fan	1	DE4510317
1.3	Washer 4,3 12mm	1	DE4510812
1.4	Screw M4x16	1	DE4510807
2	Top Cover	1	See Your Dealer
3	Round Cover	1	See Your Dealer
4	Side Cover	2	See Your Dealer
5	Down Cover	1	See Your Dealer
6	Heat Shield	1	See Your Dealer
7	Shelf	1	See Your Dealer
8	Back Cover	1	See Your Dealer
9	Name Plate	1	See Your Dealer
10	Heating Element 1400W	2	DE4510362
11	Switch	1	DE4510401
12	Bim Etal Thermostat	1	DE4510403
13	Overheat Sensor	1	DE4510404
14	Temp Limiter	1	DE4510405
15	Power Cord	1	DE4510408
16	Screw Terminal Block	1	DE4510421
17	Data Plate	1	N/A
18	Label Ground Wire	1	N/A
19	Handle	1	DE4510601
20	Strain Relief Bushing	1	DE4510605
21	Leg Rubber	4	DE4510607
22	Belt	2	DE4510608
23	Knob	2	DE4510610
24	Electrical Wire Set	1	DE4510740
25	Tap Screw 5t3,5x9,5	4	DE4510801
26	Nut M4	3	DE4510808
27	Washer A4	6	DE4510810
28	Washer A4, 3	7	DE4510811
29	Tap Screw M4x8	3	DE4510814
30	Tap Screw M4x16	1	DE4510828
31	Screw M6x14	2	DE4510829
32	Nut M6	2	DE4510830
33	Washer A6	2	DE4510831
34.1	Reset Lever	1	DE4510612
34.2	Base For Reset Lever	1	DE4510611
35	Front Cover	1	See Your Dealer



No.	Description	Qty	Part No.
1.1	Screw M4x16	1	
1.2	Motor 12w/230v		
1.3	Fan		
1.4	Washer 4,3 12mm		
2.1	Base For Reset Button		
2.1	Reset Button		
3.1	Handle Assembly		
3.2	Self Tapping Screw ST3,9x25		
3.3	Plastic Distance Piece15mm		
3.4	End Cap 12mm		
3.4	Fan Cowl		
5	Side Cover		
_			
6	Bottom Cover		
7	Facia		
8	Grill		
9	Heat Shield		
10	Washer		
11	Top Cover		
12	Tray		
13	Washer A4	2	DE4510810
14	Washer A4,3	1	DE4510811
15	Nut M4	3	DE4510808
16	Self Tapping Screw M4x8	3	DE4510814
17	Self Tapping ScrewM4x16	1	DE4510828
18	Self Tapping Screw ST3,5x9,5	4	DE4510801
19	Self Tapping Screw ST3,9x13	4	DE4510818
20	Self Tapping Screw ST3,9x9,5	40	DE4510802
21	Heating Element 1666w	3	DE4510359
22	Switch		
23	Relay		
24	Bi-metal Thermostat		
25	Overheat Sensor		
26	Temperature Limiter		
27	Plug		
28	Data Plate		
29	Label Earth Wire		•
30	Belt		
31	Knob		
32	Wire 1.5 Blue 0.08		
32	Wire 1.5 Brown 0.12		
32			
32	Wire 1.5 Brown 0.13		
_			
32	Wire 1.5 Brown 0.20		
32	Wire 1.5 Brown 0.20		
32	Wire 1.5 Blue 0.08		
32	Wire 1.5 Brown 0.24		
32	Wire 1.5 Blue 0.30		
32	Wire 1.5 Brown 0.38		
32	Wire 1.5 Brown 2x0.15		
32	Wire 2.5 Yellow 0.10	I	DE4510938



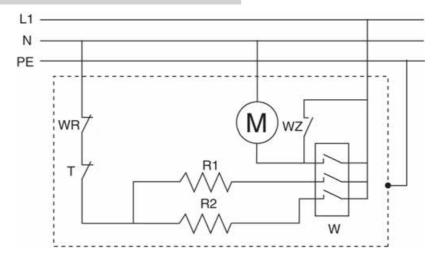
	Description	Qty	Part No.
1.1	Screw M4x16	1	DE4510807
1.2	Motor 16W/230V		
1.3	Fan		
1.4	Washer 4,3 12mm	1	DE4510812
2.1	Base For Reset Button		
2.2	Reset Button		
3.1	Handle Assembly		
3.2	Self Tapping Screw ST3,9x25	8	DE4510817
3.3	Plastic Distance Piece 15mm	8	DE4510603
3.4	End Cap 12mm		
4	Top Cover	1	DE4510104
5	Fan Cowl		
6	Side Cover	2	DE4510119
7	Bottom Cover		
8	Grill		
9	Heat Shield		
10	Facia		
11	Washer		
12	Tray		
13	Washer A4		
14	Washer A4,3		
15	Nut M4	3	DE4510808
16	Self Tapping Screw M4x8		
17 18	Self Tapping Screw M4x16	1	DE4510828
18	Self Tapping Screw ST3,5x9,5	4	DE4510801
20	Self Tapping Screw \$13,9x13	4	DE4510010
21	Self Tapping Screw ST3,9x9,5 Heating Element 3000W	2	DE4510002
22	Switch		
23	Relay		
24	Bi-metal Thermostat		
25	Overheat Sensor		
26	Temp Limiter		
27	Plua		
28	Data Plate		
29	Label Earth Wire		
30	Belt		
31	Knob		
32	Wire 1.5 Blue 0.08	2	DE4510900
32	Wire 1.5 Brown 0.12		
32	Wire 1.5 Brown 0.13	1	DE4510911
32	Wire 1.5 Blue 0.16		
32	Wire 1.5 Brown 0.20		
32	Wire 1.5 Brown 0.20		
32	Wire 1.5 Blue 0.08	1	DE4510919
32	Wire 1.5 Brown 0.24		
32	Wire 1.5 Blue 0.30		
32	Wire 1.5 Brown 0.38		
32	Wire 1.5 Brown 2x0.15		
32	Wire 2.5 Yellow 0.10	I	DE4510938



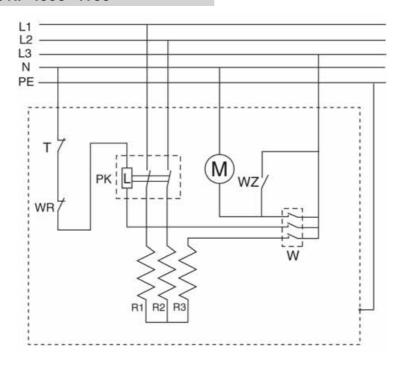
No.	Description 6	Qty	Part No.	No.	Description 6	Qty	Part No.
1.1	Screw M5x14	1	DE4510825	23	Capillary Thermostat	1	DE4510416
1.2	Nut M4	4	DE4510808	24	Heating Element 2500W	6	DE4510355
1.3	Fan Guard	1	DE4510166	25	Relay	2	DE4510402
1.4	Motor 25W/230V	1	DE4510304	26	Overheat Sensor	1	DE4510404
1.5	Fan	1	DE4510314	27	Temp Limiter	1	DE4510405
1.6	Washer 5,3 20mm	1	DE4510824	28	Plug	1	DE4510411
1.7	Screw M4x60	4	DE4510833	29	Data Plate	1	N/A
2.1	Base For Reset Button	1	DE4510611	30	Label Earth Wire	1	DE4510536
2.2	Reset Button	1	DE4510612	31	Belt	3	DE4510608
3.1	Handle Assembly	2	DE4510170	32	Capillary Support	2	DE4510609
3.2	Self Tap Screw ST3,9x25	5 8	DE4510817	33	Knob	2	DE4510610
3.3	Distance Piece 15mm	8	DE4510603	34	Wire 1.5 Blue 0.08	4	DE4510900
3.4	End Cap 12mm	4	DE4510604	34	Wire 1.5 Brown 0.08	1	DE4510901
4	Side Cover	2	DE4510157	34	Wire 1.5 Blue 0.10	1	DE4510902
5	Top Cover	1	DE4510145	34	Wire 1.5 Brown 0.10	1	DE4510903
6	Tray	1	DE4510149	34	Wire 1.5 Brown 0.12	1	DE4510906
7	Fan Cowl	1	DE4510153	34	Wire 1.5 Brown 0.16	1	DE4510912
8	Bottom Cover	1	DE4510161	34	Wire 1.5 Brown 0.16	2	DE4510914
9	Grill	2	DE4510164	34	Wire 1.5 Brown 0.18	4	DE4510915
10	Heat Shield	1	DE4510168	34	Wire 1.5 Brown 0.20	1	DE4510916
11	Facia	1	DE4510173	34	Wire 1.5 Brown 0.20	1	DE4510917
12	Screw Terminal	1	DE4510414	34	Wire 1.5 Brown 0.22	1	DE4510920
13	Washer A4	2	DE4510810	34	Wire 1.5 Brown 0.23	1	DE4510923
14	Washer A4,3	1	DE4510811	34	Wire 1.5 Brown 0.23	1	DE4510924
15	Nut M4	3	DE4510808	34	Wire 1.5 Blue 0.25	1	DE4510929
16	S/Tap Screw M4x8	2	DE4510814	34	Wire 1.5 Blue 0.28	1	DE4510930
17	S/Tap Screw M4x16	1	DE4510828	34	Wire 1.5 Brown 0.31	1	DE4510931
18	S/Tap Screw ST3,5x9,5	2	DE4510801	34	Wire 1.5 Blue 0.31	1	DE4510932
19	S/Tap Screw ST3,9x13	12	DE4510818	34	Wire 4 Brown 0.24	3	DE4510939
20	S/Tap Screw ST4,8x13	16	DE4510821	34	Wire 4 Blue 0.24	1	DE4510943
21	S/Tap Screw ST3,9x9,5	27	DE4510802	34	Wire 4 Yellow 0.30	1	DE4510944
22	Switch	1	DE4510401				

## WIRING DIAGRAMS

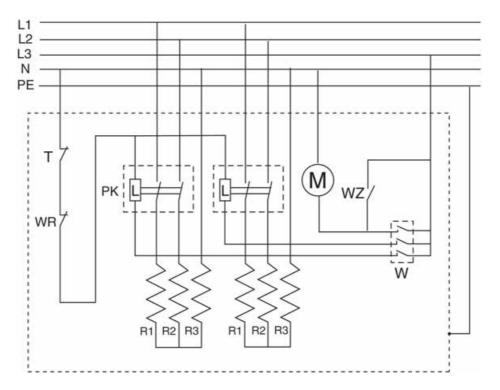
## Devil 4040



## Devil 4060 4100



#### **Devil 4120**



#### **LEGEND**

WSwitch	TThermostat			
MMotor	PKRelay			
WRTemperature Limiter	LCoil			
WZOverheating Sensor	R1 - R6Heating Elements			

## PARTS & SERVICE

PARTS & SERVICE TEL: 020 8988 7400

or e-mail as follows:

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